 Updated Command Reference

I. ADB (Android Debug Bridge)
Used for debugging and communicating with Android devices while the system is booted or in recovery.

 Connection & Power
```
adb devices # Lists connected devices
adb connect <IP>:<PORT> # Connects wirelessly (default port 5555)
adb disconnect # Disconnects wireless devices
adb reboot # Reboots system
adb reboot bootloader # Reboots to Fastboot mode
adb reboot recovery # Reboots to Recovery mode
adb reboot edl # Reboots to Emergency Download Mode (Qualcomm)
adb root # Restarts adbd with root permissions (requires rootable build)
adb unroot # Restarts adbd without root permissions
```

 Flashing & Sideload
```
adb sideload <filename.zip> # Sideloads a zip file to the device (used in Recovery)
```

 File Transfer
```
adb push <local> <remote> # Copies file from PC to device
adb pull <remote> <local> # Copies file from device to PC
```

 Package Management
```
adb install <file.apk> # Installs an APK
adb install -r <file.apk> # Re-installs/updates an APK (keeps data)
adb uninstall <package> # Uninstalls an app
adb uninstall --user 0 <pkg> # Removes system app for current user (Debloat)
adb shell pm list packages # Lists all installed packages
adb shell pm disable-user <pkg> # Disables an app without uninstalling
```

 Logs & Shell
```
adb logcat # Streams system logs
adb logcat -c # Clears the current log buffer
adb shell # Opens device terminal
adb shell <command> # Runs a command without entering shell
```

II. Fastboot
Used for modifying partitions via the bootloader. Critical for ROM flashing.

 Basic & Reboot
`
fastboot devices # Lists devices in bootloader mode
fastboot reboot # Reboots to system
fastboot reboot recovery # Reboots to recovery
fastboot reboot bootloader # Reboots back to fastboot
fastboot oem unlock # Unlocks bootloader (Older devices)
fastboot flashing unlock # Unlocks bootloader (Newer devices)
fastboot oem lock # Relocks bootloader
`

 Flashing & Wiping
`
fastboot -w # Wipe Data & Cache (factory reset equivalent)
fastboot erase <partition> # Wipes a specific partition
fastboot format <partition> # Formats a partition to default filesystem
fastboot flash <partition> <file> # Writes an image to a partition
fastboot flash boot boot.img # Flashes kernel/ramdisk
fastboot flash recovery twrp.img # Flashes recovery image
fastboot update <zipfile> # Flashes a full system update zip
`

 Advanced / A/B Slots
`
fastboot boot <file.img> # Boots an image temporarily without flashing
fastboot getvar all # Shows all device variables (IMEI, slot, battery)
fastboot set_active a # Sets Slot A as active
fastboot set_active b # Sets Slot B as active
fastboot --set-active=other # Switches to the inactive slot
`

III. TWRP (OpenRecoveryScript)
Commands usable in TWRP terminal or via adb shell inside TWRP.

`
twrp install <path/zip> # Flashes a zip file
twrp wipe cache # Wipes Cache
twrp wipe dalvik # Wipes Dalvik/ART Cache
twrp wipe data # Wipes Data (Factory Reset)
twrp wipe system # Wipes System partition
twrp backup <list> <name> # Creates backup (e.g., twrp backup SDBO MyBackup)
twrp restore <path> # Restores a backup
twrp remountrw # Mounts system as Read/Write
twrp sideload # Starts ADB Sideload listener
twrp decrypt <pass> # Decrypts data partition
`

IV. Linux Terminal
Essential CLI commands for file management and system navigation.

 File System

```
ls -lah # Lists all files with details and hidden files
cd <dir> # Change directory
pwd # Print working directory
cp -r <src> <dest> # Copy files/folders recursively
mv <src> <dest> # Move or rename
rm -rf <path> # Force delete file or folder
mkdir -p <path> # Create directory tree
touch <file> # Create empty file
cat <file> # Read file content
nano <file> # Edit file
```

 Permissions & Owner
```
chmod +x <file> # Make file executable
chmod 777 <file> # Grant all permissions to everyone
chown user:group <file> # Change ownership
```

 System & Process
```
sudo !! # Re-run last command with root privileges
ps aux # List all running processes
kill -9 <PID> # Force kill a process ID
df -h # Check disk space usage
free -h # Check RAM usage
tar -xvf <file.tar> # Extract tar archive
unzip <file.zip> # Extract zip archive
grep -r "text" . # Search for text recursively in current directory
history # Show command history
```